Clean Version of the Entire Set of Pending Claims

1. In a network architecture comprising a telephone switch, an access server coupled to a data network and the telephone switch via a telecommunications medium to transmit user information between the telephone switch and the data network, and a gateway coupled to the access server and the telephone switch via an out-of-band communications medium to transmit signaling information between the telephone switch and the access server, a method, comprising:

a) sending a status message from the access server to the gateway; and

b) acknowledging to the access server that the status message was received.

2. The method of claim 1, wherein sending a status message from the access server to the gateway comprises sending a status message from the access server to the gateway that indicates the access server is operational.

3. The method of claim 1, wherein sending a status message from the access server to the gateway comprises sending a status message from the access server to the gateway that specifies the capabilities of the access server.

4. The method of claim 1, wherein acknowledging to the access server that the status message was received comprises sending a status

acknowledgement message from the gateway to the access server that indicates the status message was received.

5. The method of claim 4, wherein sending a status acknowledgement message from the gateway to the access server that indicates the status message was received comprises sending a status acknowledgement message from the gateway to the access server that indicates the status message was received and that the gateway allows the access server to receive calls.

6. The method of claim 4, wherein sending a status acknowledgement message from the gateway to the access server indicates the status message was received comprises sending a status acknowledgment message from the gateway to the access server that indicates the status message was received and that the gateway allows the access server to generate calls.

7. The method of claim 1, further comprising sending an interface status message from the access server to the gateway to register at least one interface on the access server that is available to receive user information from the telephone switch.

8. The method of claim 7, further comprising sending an interface status acknowledgement from the gateway to the access server in response to receiving an interface status message.

9. The method of claim 7, wherein sending an interface status message from the access server to the gateway to register at least one interface on the access server that is available to receive user information from the telephone switch comprises sending an interface status message from the access server to the gateway to register at least one interface on the access server that is available to receive user information from the telephone switch and to provide status on at least one channel on the interface.

10. The method of claim 9, further comprising sending a service message from the access server to the gateway upon a chance of state in one of the interfaces and channels.

11. The method of claim 10, further comprising sending a service message from the gateway to the access server to request a change in the status of one or the at least one interfaces and channels on the access server.

12. In a network architecture comprising a telephone switch, an access server coupled to data network and the telephone switch via a telecommunications medium to transmit user information between the telephone switch and the data network, and a gateway coupled to the access server and the telephone switch via an out-of-band

communications medium to transmit signaling information between the telephone switch and the access server, a method, comprising:

a) sending a continuity check message from the gateway to the access server; and

b) sending a continuity check result message from the access server to the gateway.

13. The method of claim 12, further comprising sending a continuity check result acknowledgment message from the gateway to the access server in response to sending a continuity check result message from the access server to the gateway.

14. In a network architecture comprising a telephone switch, an access server coupled to a data network and the telephone switch via a telecommunications medium to transmit user information between the telephone switch and the data network, and a gateway coupled to the access server and the telephone switch via an out-of-band communications medium to transmit signaling information between the telephone switch and the access server, a apparatus, comprising:

means for sending a status message from the access server to the gateway; and

means acknowledging to the access server that the status message was received.

15. The apparatus of claim 14, wherein the means for sending a status message from the access server to the gateway comprises means for sending a status message from the access server to the gateway that indicates the access server is operational.

16. The apparatus of claim 14, wherein the means for sending a status message from the access server to the gateway comprises means for sending a status message from the access server to the gateway that specifies the capabilities of the access server.

17. The apparatus of claim 14, wherein the means for acknowledging to the access server that the status message was received comprises means for sending a status acknowledgement message from the gateway to the access server that indicates the status message was received.

18. The apparatus of claim 17, wherein the means for sending a status acknowledgement message from the gateway to the access server that indicates the status message was received comprises means for sending a status acknowledgement message was received and that the gateway allows the access server to receive calls.

19. The apparatus of claim 17, wherein the means for sending a status acknowledgement message from the gateway to the access server that indicates the status message was received comprises means for sending

a status acknowledgement message from the gateway to the access server that indicates the status message was received and that the gateway allows the access server to generate calls.

20. In a network architecture comprising a telephone switch, an access server coupled to a data network and the telephone switch via a telecommunications medium to transfer user information between the telephone switch and the data network, and a gateway coupled to the access server and the telephone switch via an out-of-band communications medium to transmit signaling information between the telephone switch and the access server, an article of manufacture comprising:

a computer usable medium having computer readable program code means embodied therein comprising:

computer readable program means for sending a status message from the access server to the gateway; and

computer readable program means acknowledging to the access server that the status message was received.